AMENDMENTS TO THE SPECIFICATION

Please amend the sections of the specification as follows:

Page 1, line 3 to page 2, line 7.

BACKGROUND ~~OF THE INVENTION~~

~~FIELD OF THE INVENTION~~

This ~~invention~~ disclosure relates to a method and system for portable personal computer manufacturers to program, configure, and customize battery units powering portable personal computers.

~~DESCRIPTION OF THE RELATED ART~~

Page 4, line 1 to page 4, line 21.

SUMMARY ~~OF THE INVENTION~~

In an embodiment of the ~~invention~~ disclosure, memory in a battery unit is modified by assigning a predetermined data word to an available address in memory. Based on this address word and checksum routines on memory registers, inadvertent or malicious modifications are prevented. Data is received and processed through a non-reprogrammable portion of the memory, which in turn passes changes to programmable section in memory.

In other embodiments ~~of the invention~~, a multiplexor receives the data and

processes the data along with a control signal. The control signal provides additional security in transferring data to the programmable section of the memory.

In certain other embodiments ~~of the invention~~, the use of added security measures is provided, where modification of the programmable section of the memory is not performed nor is data made available if the security measure or measures are not met. Security measures include encryption and decryption of data.

In other embodiments ~~of the invention~~, the system management bus (SMB) is used to transmit data. In mobile information handling devices such as a personal computer, existing SMBs are used to transmit data.

The foregoing is a summary and thus contains, by necessity, simplifications, generalizations and omissions of detail; consequently, those skilled in the art will appreciate that the summary is illustrative only and is not intended to be in any way limiting. Other aspects, inventive features, and advantages of the present ~~invention~~ disclosure, as defined solely by the claims, will become apparent in the non-limiting detailed description set forth below.

Page 5, line 1 to page 6, line 12.

BRIEF DESCRIPTION OF THE DRAWINGS

The present ~~invention~~ disclosure may be better understood, and its numerous objects, features and advantages made apparent to those skilled in the art by referencing the accompanying drawings. The use of the same reference number throughout the figures designates a like or similar element.

Fig. 1 is a block diagram illustrating certain battery signal connections.

Fig. 2 is a block diagram illustrating connection of batteries to a personal computer keyboard controller.

Fig. 3 is a block diagram illustrating certain device interfacing by a system management bus to a personal computer keyboard controller.

Fig. 4 is a block diagram illustrating battery configuration changes through a personal computer's central processor.

Fig. 5A is a block diagram illustrating direct firmware updates to a battery unit.

Fig. 5B is a block diagram illustrating firmware updates to a battery unit using multiplexed communication.

Fig. 6 is a block diagram illustrating the architecture of a battery unit memory.

Fig. 7 is a flow chart illustrating the process of updates to battery firmware.

Fig. 8 is a block diagram illustrating a computer system suitable for implementing embodiments of the present ~~invention~~ disclosure.

While the ~~invention~~ disclosure is susceptible to various modifications and alternative forms, specific embodiments thereof are shown by way of example in the drawings and will herein be described in detail, it should be understood, however, that the drawings and detailed description thereto are not intended to limit the ~~invention~~ disclosure to the particular form disclosed but on the contrary, the intention is to cover

all modifications, equivalents, and alternatives falling within the spirit and scope of the present ~~invention~~ disclosure as defined by the appended claims.

DETAILED DESCRIPTION

The following is intended to provide a detailed description of an example of the ~~invention~~ disclosure and should not be taken to be limiting of the ~~invention~~ disclosure itself. Rather, any number of variations may fall within the scope of the ~~invention~~ disclosure which is defined in the claims following the description.

Introduction

The present ~~invention~~ disclosure provides a method and apparatus for modifying the firmware of a battery unit that provides power to a mobile information handling device such as a PC. Updates are provided through an existing ~~an~~ SMB. A firmware hub in the PC system assures a level of software programming security. Additional software security is provided by a multiplexor in the battery unit that receives a control signal in order for the battery unit to be updated.

Page 12, line 9 to page 12, line 21.

An Example Computing Environment

Figure 8 depicts a block diagram of a computer system 810 suitable for implementing the present ~~invention~~ disclosure, and example of one or more of client computers 820(1)-(N). Computer system 810 includes a bus 812 which interconnects major subsystems of computer system 810 such as a central processor 814, a system memory 816 (typically RAM, but which may also include ROM, flash RAM, or the like),

an input/output controller 818, an external audio device such as a speaker system 820 via an audio output interface 822, an external device such as a display screen 824 via display adapter 826, serial ports 828 and 830, a keyboard 832 (interfaced with a keyboard controller 833), a storage interface 834, a floppy disk drive 836 operative to receive a floppy disk 838, and a CD-ROM drive 840 operative to receive a CD-ROM 842. Also included are a mouse 846 (or other point-and-click device, coupled to bus 812 via serial port 828), a modem 847 (coupled to bus 812 via serial port 830) and a network interface 848 (coupled directly to bus 812).

Page 14 line 1to page 14 line 14.

Moreover, regarding the signals described herein, those skilled in the art will recognize that a signal may be directly transmitted from a first block to a second block, or a signal may be modified (e.g., amplified, attenuated, delayed, latched, buffered, inverted, filtered or otherwise modified) between the blocks. Although the signals of the above described embodiment are characterized as transmitted from one block to the next, other embodiments of the present ~~invention~~ disclosure may include modified signals in place of such directly transmitted signals as long as the informational and/or functional aspect of the signal is transmitted between blocks. To some extent, a signal input at a second block may be conceptualized as a second signal derived from a first signal output from a first block due to physical limitations of the circuitry involved (e.g., there will inevitably be some attenuation and delay). Therefore, as used herein, a second signal derived from a first signal includes the first signal or any modifications to the first signal, whether due to circuit limitations or due to passage through other circuit elements which do not change the informational and/or final functional aspect of the first signal.

Page 14 line 26o page 14 line 30.

Although the present ~~invention~~ disclosure has been described in connection with several embodiments, the ~~invention~~ disclosure is not intended to be limited to the specific forms set forth herein, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents as can be reasonably included within the spirit and scope of the ~~invention~~ disclosure as defined by the appended claims.